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Kenji Takeda

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5814

7590

11/14/2006

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EXAMINER

ROBERTS, BRIAN S

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/010,330

Applicant(s)

TAKEDA, KENJI

Examiner

Brian Roberts

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

- Applicant's Appeal Brief filed 08/07/2006 is acknowledged.
- Claims 1-15 remain pending.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claims 1, 3, 6, 8

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term counter/data transmitter "for counting the number of round trips of data packets transmitted" is indefinite because the specification does not clearly redefine the term. According to the specification, "When the counter value added to a received ACK message is equal to the current counter value, ACK processing means increases the counter value by one" (abstract). The counter does not count the number of round trips of data packets transmitted because while the data packets are

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transmitted from a data transmitter to a data receiver, they are not transmitted back to the data transmitter from the data receiver. The data packets never make a round trip. Instead, data packets are transmitted from a data transmitter to a data receiver and then ACK packets are transmitted from the data receiver to the data transmitter. Appropriate correction is required to clearly distinguish that a round trip consists of a data transmitter transmitting a data packet to a data receiver and the data receiver transmitting an ACK message in response to the received data packet to the data transmitter.

- In reference to claim 1

Claim 1 recites the limitations "the received data packet" in line 5, and "the transmitted data packet" in line 5-6. There is insufficient antecedent basis for this limitation in the claim.

- In reference to claim 3

Claim 3 recites the limitations "the received data packet" in line 5, "the transmitted data packet" in line 5-6, "the data packet" in line 14, and "the first data packet" in line 18. There is insufficient antecedent basis for this limitation in the claim.

- In reference to claims 5 and 10

The term "closed window" is undefined and renders the claim indefinite. The term "closed window" is not defined by the claim, the specification does not provide a

standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

- In reference to claim 5

Claim 5 recites the limitations "the received data packet" in line 5, and "the transmitted data packet" in lines 6. There is insufficient antecedent basis for this limitation in the claim.

- In reference to claim 6

Claim 6 recites the limitations "the received data packet" in line 6, and "the transmitted data packet" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

- In reference to claim 8

Claim 8 recites the limitations "the received data packet" in line 5-6, "the transmitted data packet" in line 6. There is insufficient antecedent basis for this limitation in the claim.

- In reference to claim 10

Claim 10 recites the limitations "the received data packet" in line 5, and "the transmitted data packet" in lines 6. There is insufficient antecedent basis for this limitation in the claim.

- In reference to claims 2, 4, 7, 9, and 11-15.

Claims 2, 4, 7, 9, and 11-15 are rejected because they are dependent on claims 1, 3, 5-6, 8 and 10.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 6-7, and 11-12, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Tahara (US 5425025).

- In reference to claim 1, 6, 11

In Figures 2, 3, and 11, Tahara teaches a communication system and method including a data transmitter, data receiver, and data network wherein the data transmitter transmits data packets to the receiver, and the data receiver transmits ACK packets to the data transmitter and the data transmitter retransmits lost data packets based on the content of the ACK packet wherein the data transmitter includes:

- A counter for counting the number of round trips of data packets (column 3 lines 44-49)

- Means for storing, for each transmitted data packet, a relationship between the data packet and the sequence number of a counter at the time of the transmission of the data packet (column 3 lines 50 – column 4 line 19)
- Means for judging when the stored sequence number value of the counter is a variable number which includes two smaller than the current sequence number counter value that the data packet corresponding to the stored sequence number counter value has been lost (column 6 lines 47-60)

- In reference to claim 2, 7, 12

In Figure 1, Tahara further teaches a communication system that includes:

- The data transmitter including means for incorporating the sequence number of the counter into the data packet transmitted (column 3 lines 44-49)
- The data receiver including means for incorporating the sequence number of the counter that was incorporated into the data packet transmitted, into an ACK packet for the received data packet (column 3 lines 44-49)
- The data transmitter including means for increasing the sequence number counter value by one in the case where the value contained in the received ACK packet is equal to the counter value. (column 3 lines 50 – column 4 line 19)

4. Claims 5, 10, and 15, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Stallings "Data and Computer Communications".

- In reference to claim 5, 10, 15

Stallings teaches a data transmitter, a data receiver, and a network for connecting the data transmitter to the data receiver, wherein said data transmitter transmits data packets to the data receiver, said data receiver transmits an ACK packet for informing the data transmitter of the confirmation of the delivery of the received data packet, and said data transmitter detects the loss of the transmitted data packet based on the content of the ACK packet and retransmits the data packet, which has been detected to be lost, whereby error control of data packets is carried out and, wherein, during error control in its period between the detection of the loss of a data packet and the confirmation of the delivery of the data packet by the data transmitter, transmission flow control is carried out by the use of a fixed sliding-window scheme that includes the use of acknowledgements to advance the transmission window where the transmission window is advanced when an ACK packet is received. (pg. 550)

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-4, 8-9, and 13-14, as best understood, rejected under 35 U.S.C. 103(a) as being unpatentable over Tahara (US 5425025) in view of Ayanoglu et al. (US 5570367).



- In reference to claims 3-4, 8-9, 13-14

In Figures 2, 3, and 11, Tahara teaches a communication system and method including a data transmitter, data receiver, and data network wherein the data transmitter transmits data packets to the receiver, and the data receiver transmits ACK packets to the data transmitter and the data transmitter retransmits lost data packets based on the content of the ACK packet wherein the data transmitter includes:

- A counter for counting the number of round trips of data packets (column 3 lines 44-49)
- Means for storing, for each transmitted data packet, a relationship between the data packet and the sequence number of a counter at the time of the
- Means for judging when the stored sequence number value of the counter is a variable number which includes two smaller than the current sequence number counter value that the data packet corresponding to the stored sequence number counter value has been lost (column 6 lines 47-60)

Tahara does not teach a first table for storing the relationship between the data packet and the time at the point of the transmission of the data packet in the first table or when the value of the time stored in the first table is smaller than the value of the time corresponding to a counter value which is two smaller than the current counter value stored, judging that the data packet corresponding to the time stored in the first table has been lost.

Ayanoglu et al. teaches a data communication system and method that includes generating a transmission time inherently with a clock and recording the packet

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identification number and transmission time in a status array. The transmission time can be utilized to judge the sequence of the packets where the older transmission time, the older the packet. (column 3 lines 37-43)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Tahara to include to retransmit a packet when the transmission time of a packet stored in the status array is two smaller than the clock corresponding to the counter value as taught by Ayanoglu et al. because the recorded the transmission time allows packets older than a particular transmission time to be judged to be lost and retransmitted.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1, 3, 5, 6, 8, and 10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 10:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BSR  
11/09/2006

  
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